

NICOLAU, St.S., academician; SURDAN, C.; SARATEANU, D.; ATHANASIU, P.;
SQRADOC, G.; ANAGNOSTE, B.; incolaborare cu ILIESCU, C.; RADESCU, R.

Inframicrobial etiology in the field of cardiovascular diseases. II
Inframicrobiological study of 50 cases. Stud. cercet. inframicrobiol.
no.4:525-534 '61.

1. Comunicare prezentata la Institutul de inframicrobiologie al
Academiei R.P.R. ~~inframicrobiologie~~

(CARDIOVASCULAR DISEASES virology)
(RICKETTSIAL DISEASES) (MYOCARDIAL INFARCT virology)
(RAYNAUD'S DISEASE virology) (THROMBOANGIITIS OBLITERANS virology)

NICOLAU, St. S., cad.; SARATEANU, D.; SURDAN, C.; ATHANASIU, P.; ANAGNOSTE, B.; SORODOC, G.; ILIESCU, C.; RADESCU, R.; MALITCHI, E.

Viral etiology in cardiovascular diseases. III. Thromboangiitis obliterans with migratory phlebitis of rickettsial origin. Studii cerc inframicrobiol 12 no.4:535-541 '61.

1. Institutul de inframicrobiologie al Academiei R.P.R. 2. Membru al Comitetului de redactie si redactor responsabil "Studii si cercetari de inframicrobiologie" (for Nicolau) 3. Membru al Comitetului de redactie "Studii si cercetari de inframicrobiologie" (for Sarateanu).

NICOLAU, St. S., Acad.; SARATEANU, D.; ATHANASIU, P.; SURDAN, C.; SORODOC, G.;
ANAGNOSTE, B.

Viral etiology in cardiovascular diseases. IV. Experimental and histological study on some cases of rickettsial thromboangiitis obliterans,
Studii cerc inframicrobiol 12 no.4:543-549 '61.

1. Institutul de inframicrobiologie al Academiei R.P.R. 2. Membru al
Comitetului de redactie si redactor responsabil. 3. Membru al Comite-
tului de redactie "Studii se cercetari de inframicrobiologie" (for
Sarateanu)

+

NICOLAU, St. S., academician; ATHANASIU, Pierrette; SURDAN, C.; SARATEANU, D.; SORODOC, G.; ANAGNOSTE, B.; in colaborare cu ILIESCU, C.; RADESCU, R.; VELCIU, V.; MARDARE, I.

Viral etiology of cardiovascular diseases. VI. Histopathological evidence of rickettsial or pararickettsial infection in thromboangiitis and myocardial infarct. Stud. cercet. inframicrobiol. 13 no.1:19-26 '62.

(THROMBOANGIITIS OBLITERANS virology)
(MYOCARDIAL INFARCT virology)
(CARDIOVASCULAR DISEASES virology)
(RICKETTSIAL DISEASES)

NASTAG, E.; ANAGNOSTE, B.; BALMUS, Gh.

Experimental research on murine leukemia. III. Results of intracerebral passage in heterologous species of the filtrable factor of tumors from leukemic mice of the AKm strain. Stud. cercet. inframicrobiol. 13 no.1: 51-56 '62.

(LEUKEMIA experimental)

NICOLAU, St.S., academician; SURDAN, C.; SARATEANU, D.; ATHANASIU, Pierrette;
SOROLOC, G.; ANAGNOSTE, B.; in colaborare cu ILIESCU, C.; RADESCU, R.

Inframicrobiol etiology of cardiovascular diseases. VII. Experimental,
serological and histopathological studies. Stud. cercet. inframicrobiol.
13 no.2:145-161 '62.

(CARDIOVASCULAR DISEASES virology) (VIRUS DISEASES)
(RAYNAUD'S DISEASE virology) (PHLEBITIS virology)
(CORONARY DISEASE virology) (RICKETTSIAL DISEASES)

27/2/21A

B. ALAGHETE, N. SAMATEANU, C. SURDEANU and G. SOROLIU, (Affiliation as
above)

"Distribution of Ornithosis - Psittacosis Virus Particles in Hen
Embryonated Eggs."

Bucharest, Acadia si Cercetari de Inframicrobiologie, Vol 13, No 6, 1952,
pp 725-730.

Abstract English summary modified: Study in 229 embryonated eggs
revealed that inoculation of ornithosis virus into allantoic space
produced a rather even distribution of viral particles throughout the
egg, suggesting that a great saving may be possible by using the whole
egg to prepare vaccines for serologic studies and vaccine manufacture.
One Czech, 1 Japanese, 3 Romanian, 14 Western references.

CAJAL, M.; RATIU, D.; ALEXANDRESCU, M.M.; CUPCEANCU, B.; in colaborare cu
SURDAN, C.; POPESCU-DANESCU, G.; ANAGNOSTE, B.; SORODOC, G.

The role of Ricksettsias and Pararickettsias in pregnancy pathology.
I. Investigations of the relation between rickettsial and pararickettsial
infections in mothers and neonatal mortality. Stud. cercet. inframicrobiol.
13 no.6:659-665 '62.

1. Comunicare prezentata la Institutul de inframicrobiologie al
Academiei R.P.R.

(RICKETTSIAL DISEASES) (PREGNANCY COMPLICATIONS)
(INFANT MORTALITY) (ABORTION) (FETAL DISEASES)

NICOLAU, St.S.; SURDAN, C.; SARATEANU, D.; ATHANASIU, P.; SORODOC, G.;
ANAGNOSTE, B.; with the collaboration of ILIESCU, C.; RADESCU, R.

Viral etiology in cardiovascular affections. II. A virological
study of 50 cases. Rev. sci. med. 7 no.1/2:87-91 '62.

1. Member of the Academy of the R.P.R. (for Nicolau).
(RICKETTSIAL DISEASES) (CARDIOVASCULAR DISEASES)

NICOLAU, St.S.; SARATEANU, D.; SURDAN, C.; ATHANASIU, P.; ANAGNOSTE, R.; SORODOC, G.; with the collaboration of ILIESCU, C.; RADESCU, R.; MALITCHI, E.

Viral etiology in cardiovascular affections. III. Thromboangiitis obliterans with migratory phlebitis of rickettsial origin. Rev. sci. med. 7 no.1/2:93-97 '62.

1. Member of the Academy of the R.P.R. (for Nicolau).
(THROMBOANGIITIS OBLITERANS) (THROMBOPHLEBITIS)
(RICKETTSIAL DISEASES)

NICOLAU, S. St.; SARATEANU, D.; ATHANASIU, P.; SURDAN, G.; SORODOC, G.;
ANAGNOSTE, B.

Viral etiology in cardiovascular affections. IV. Experimental
and histopathological study of some cases of rickettsial thrombo-
angiitis obliterans. Rev. sci. med. 7 no.1/2:99-103 '62.

1. Member of the Academy of the R.P.R. (for Nicolau).
(THROMBOANGIITIS OBLITERANS) (RICKETTSIAL DISEASES)

ILIESCU, C.C., prof.; RADESCU, Radu; in collaboration with NICOLAU, St. S., prof.; SURDAN, G.; SARATEANU, D.; ATHANASIU, P.; ANAGNOSTE, B.; SORODOC, G.

Some data on the role of germs belonging to the rickettsia and pararickettsia groups in the aetiology of certain cardiovascular affections. Rumanian med. rev. no.8:35-40 '62.

(RICKETTSIAL DISEASES) (CARDIOVASCULAR DISEASES)

CAJAL, M.; HERSCOVICI, P.; TEODORU, G.; GROSU, L.; in colaborare cu SURDAN, C.;
ANAGNOSTE, B.; POPESCU-DANESCU, G.; SORODOC, G.

The role of Rickettsias and Pararickettsias in pregnancy pathology.
II. Investigations of the relation between rickettsial and pararickettsial
infection; in mothers and the occurrence of congenital malformations.
Stud. cercet. inframicrobiol. 13 no.6:667-673 '62.

1. Comunisare prezentata la Institutul de inframicrobiologie al
Academiei R.P.R.

(RICKETTSIAL DISEASES) (PREGNANCY COMPLICATIONS)
(ABNORMALITIES)

ANAGNOSTE, B.; SARATEANU, D.; SURDAN, C.; SORODOC, G.

Distriluție of ornithosis-psittacosis germs in embryonated hen egg.
Stud. cercet. inframicrobiol. 13 no.6: 725-730 '62.

1. Comunicare prezentata la Institutul de inframicrobiologie al
Academiei R.P.R.
(MIYAGAWANELLA)

ILIESCU, C.C., prof.; RADESCU, Radu, dr. (ASCAR); in colaborare cu: acad.
NICOLAU, St. S.; SURDAN, C., dr.; SARATEANU, D. dr.; ATHANASIU, P., dr.;
ANAGNOSTE, B., dr.; SORODOC, Gh., dr.

Some data on the role of microorganisms of the rickettsial and
pararickettsial groups in the etiology of several cardiovascular
diseases. Med. intern. 14 no.4:615-620 My '62.

1. Institutul de inframicrobiologie.

(THROMBOANGIITIS OBLITERANS) (CORONARY DISEASE)
(MYOCARDIAL INFARCT) (ARTERIOSCLEROSIS) (RAYNAUD'S DISEASE)
(RICKETTSIAL DISEASES) (ORNITHOSIS)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

SURDAN, C.; CAJAI, M.; ANAGNOSTE, B.; ATHANASIU, Pierrette;
POPESTIU-DANESCU, G.; SORODOC, G.

Research on the role of rickettsias and pararickettsias in
pregnancy pathology. Rev. sci. med. g no. 1/2:15-18 '63.

(PREGNANCY COMPLICATIONS) (RICKETTSIAL DISEASES) (ABORTION)
(ABNORMALITIES)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

NICOLAU, St. S.; SURDAN, C.; SARATEANU, D.; ATHANASIU, Pierrette;
ANAGNOSTE, B.; SORODOC, G.; POPESCU, G.; en collaboration
avec ILIESCU, C.; RADESCU, R.; MALITCHI, E.

Study on the rickettsial etiology of various angiopathies.
Rev. sci. med. 8 no. 1/2:69-73 '63.

1. Membre de l'Academie de la Republique Populaire Roumaine
(for St.S. Nicolau).
(RICKETTSIAL DISEASES) (VASCULAR DISEASES)

NASTAC, E.; ANAGHIOSTE, B.; BALMUS, G.

Experimental investigations in murine akm leukemia. Neoplasma 10
no.1:51-59 '63.

1. Institute of Inframicrobiology of the R.P.R. Academy, Bucarest,
Roumania.

(LEUKEMIA, EXPERIMENTAL) (NEOPLASMS, EXPERIMENTAL)
(PATHOLOGY) (LIVER) (BRAIN) (LUNG NEOPLASMS)
(KIDNEY) (RABBITS) (TUMOR VIRUSES)

NASTAC, E.; ANAGNOSTE, B.; BALMUS, G.; TARCHILA, D.

Experimental investigations in human leukemia attempts at transmission
to the hybrid white mouse. Neoplasma 10 no.1:61-64 '63.

1. Institut of Inframicrobiology of the R.P.R Academy, Bucarest,
Roumania.

(LEUKEMIA, LYMPHOCYTIC) (LEUKEMIA, EXPERIMENTAL)

NASTAC, E.; ANAGHIOSTE, B.

Experimental investigations on the oncolytic action of certain viruses.
Neoplasma 10 no.1:65-74 '63.

1. Institute of Inframicrobiology of the R.P.R. Academy, Bucarest,
Romania..

(AVIAN LEUKOSIS VIRUS) (MUMPS VIRUS)
(CARCINOMA, ERHЛИCH TUMOR) (VACCINIA VIRUS) (HERPESVIRUS)
(NEOPLASMS, EXPERIMENTAL) (TUMOR VIRUSES) (VIRUSES)
(FOWL PLAGUE VIRUS)

SARATEANU, D.; SURDAN, C.; SORODOC, G.; ANAGNOSTE, B.; STEFANESCU, I.;
in colaborare cu: POPESCU, Ar.

Research on the incidence of anti-ornithosis antibodies in
horses and men. Stud. cercet. inframicrobiol. 14 no.2:131-134
'63.

1. Comunicare prezentata la Institutul de inframicrobiologie
al Academiei R.P.R.

(MIYAGAWANELLA) (ANTIBODIES)
(HORSE DISEASES) (ZOONOSSES)

RUMANIA

C. SURDAN, D. SARATEANU, G. POPESCU, B. ANAGNOSTE, G. SORODOC, P. ATHANASIU and I. STEPA NESCU [see affiliation above and also] Polyclinic (Polyclinica) "13 Septembrie," [Bucharest.]

"Studies on the Rickettsial or Pararickettsial Etiology of Certain Thrombophlebitides."

Bucharest, Studii si Cercetari de Inframicrobiologie, Vol 14, No 2, 1963; 161-170.

Abstract [English summary modified]: Positive or doubtful rickettsial microagglutination tests were found in 28 out of 39 patients with thrombophlebitis obliterans, 3 of 4 erythema nodosum, all 5 with thromboangiitis obliterans; but only 5 of 11 with other diseases. Of the 36 serologically positive, 24 reacted with Rickettsia burnetii; from the venous blood of 3 patients Rickettsia strains were isolated, including R. burnetii in 2 instances. Tetracyclines were found effective therapy in thrombophlebitic affections. Much reference to Giroud's data from French Morocco. Four tables; 5 French and 11 Rumanian references.

1/1

40

SARATEANU, D.; SUNDAN, C.; SORODOC, G.; ANAGNOSTE, B.; STEFANESCU, I.
in colaborare cu DUMA, M.; MARTA, M.; VASILE, C.; FLORESCU, T.;
PAICU, P.

Research on active immunization against ovine enzootic
abortion. Immunological study in various epizootiological
conditions. Stud. cercet. inframicrobiol. 14 no.3:283-294
'63.

(ABORTION, VETERINARY) (SHEEP DISEASES)
(RICKEMTSIAL DISEASES) (IMMUNOLOGY)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

HUMANIA

FILIPESCU, Z., MD.; CURELARIU, I., MD.; ANAGNOSTE, MD.; CEAUSU, M., MD.;
FAGARASANU, R., MD.

Surgical Clinic II of the Emergency Clinical Hospital "I. C. Frimu",
Bucharest (Clinica a II-a de chirurgie a Spitalului clinic de
urgenta "I. C. Frimu", Bucuresti); Director: Professor I. TURAI -
(for all)

Bucharest, Viața Medicală, No 15, 1 Aug 63, pp 1041-1045

"Acute Poisoning with Hydrazide."

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

SCHACHTER, A.; CAJAL, N.; CEPELEANU, M.; SARATEANU, D.; SORODOC, Y.;
ANAGNOSTE, V.

Further data concerning the viral etiology of malignant lymphogranulomatosis (Hodgkin's disease). Stud. cercet. inframicrobiol. 13 no.4:
449-454 '62.
(HODGKIN'S DISEASE) (TUMOR VIRUSES)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

MUGOS, Gh., dr., candidat in stiinte medicale; ANAGNOSTE, V., dr.

Changes in plasmatic fibrinolytic activity in patients with
cardiovascular diseases. Med. intern. (Bucur.) 17 no.9:1103-1109
S '65.

1. Lucrare efectuata in Clinica medicala a Spitalului de urgență,
București (director: prof. C. Gh. Dimitriu).

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

ANAGORSKIY, L.A., kand. tekhn. matik; KOSHKA, A.P., inzh.

Welding of transformer steel. Svar. proizv. 12:13-14 D '63.
(MIRA 18:9)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

SCHACHTER, A., dr.; ROSALA, E., dr.; GEORGESCU, I.St., dr.; ANAGNOSTE, V., dr.

Pain caused by alcohol in Hodgkin's disease. (Considerations on a vertebral localization revealed by the alcohol test). Med. intern. 14 no.10:1211-1216 0 '62.

1. Lucrare efectuata in Clinica medicala "I.C. Frimu" (director: prof. C. Gh. Dimitriu), Bucuresti.
(ALCOHOL, ETHYL) (HODGKIN'S DISEASE) (SACROILIAC REGION)
(ILIUM) (SPINAL NEOPLASMS)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

ANAGNOSTI, Petar V., ins.

Computation of earth dam stability. Građevinar 14 no.10:341-344 0
'62.

1. Energoprojekt, Beograd.

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

ANAGNOSTI, Petar, dr (Beograd)

Rock mechanics and theory of boundary balance. Gradevinar 16
no.5:181-186 My '64.

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

ANAGNOSTI, Patar, inz. projektant (Beograd, Timocka 9)

Solution for a solid cylinder under triaxial load. Tehnika Jug:
Suppl.: Gradevinarstvo 17 no.2:245-253 Fe '63.

1. Preduzece Energoprojekt, Beograd.

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

ANAGNOSTI, Petar, inz.; (Beograd); RADUKIC, Vladimir, inz. ((Beograd)

Determination of the filtration coefficient (Darcy law)
in the rock mass. Gradevinar 15 no.10s362-368 0'63.

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

ANAGNOSTI, Vladimir, N.
SURNAME (in caps); Given Name(s)

Country: Yugoslavia

Academic Degrees: Dr.

Affiliation: Travnik

Source: Belgrade, Narodno zdravlje, No 7-8, 1961, pp 248-253.

Data: "The Influence of Normal Lactation and Premature Ablactation on the Physical Development of Infants."

KOROLEV, S., inzh.; LAVRENT'YEV, V., inzh.; ANAGORSKIY, L., red.;
ROMANNIKOV, F., red.izd-va; KARZHAVINA, Ye., tekhn.red.

[Build-up welding of standard parts] Naplavka tipovykh de-
talei. Lipets, Lipetskoe knizhnoe izd-vo, 1962. 65 p.

1. Svarkochnoye byuro Lipetskogo traktornogo zavoda (for
(MIRA 17:3)
Korolev, Lavrent'yev).

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

FOMINOV, A Ya., inzh.; ANAGORSKIY, L A., kand.tekhn.nauk, dotsent

Efficient layout of billets for heating in an electrolyte. Vest.
mash. 40 no.6:57-60 Je '60. (MIRA 13:8)
(Electric heating)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

FOMINOV, A.Ya., starshiy prepodavatel'; ANAGORSKIY, L.A., kand. tekhn. nauk,
dot ent;

Calculation of baths and circulation systems in electrolytic
heating units. Izv. vys. ucheb. zav.; mashinostr. no.3:173-180
'64. (MIRA 17:7)

1. Ryazanskiy radiotekhnicheskiy institut.

ANAKHASYAN, V.E., TULYAKOVA, L.S.

Circular mechanical suture of the right iliac artery injured and ligated during herniorrhaphy. Khirurgija 34 no.8:126-129 Ag '58
(MIRA 11:9)

1. Iz Instituta imeni Sklifosovskogo (dir. - zaslyshenyy vrach USSR M.M. Tarasov, glavnyy khirurg. - prof. B.A. Petrov, zav. klinikoy - prof. P.I. Androsov, zav. otdeleniyem N.V. Khoroshko).
(ARTERIES, ILIAC, wds. & inj.

in right inguinal herniorrhaphy, circular mechanical suture in repair (Rus)
(HERNIA, INGUINAL, surg.)

herniorrhaphy causing right iliac artery inj., circular mechanical suture in repair (Rus))

ANAKHASYAN, V. R.

Single stage arteriography of the blood vessels of the lower extremities. Khirurgia no.2:48-51 '62. (MIRA 15:2)

1. Iz Moskovskogo gorodskogo nauchno-issledovatel'skogo instituta skoroy pomoshi imeni N. V. Sklifosovskogo (dir. - zasluzhennyj vrach USSR M. M. Tarasov, glavnnyj khirurg - zasluzhennyj devatel' nauki RSFSR chlen-korrespondent AMN SSSR prof. B. A. Petrov)

(ANGIOGRAPHY)

ANAKHASYAN, V.R.; OSTROVSKAYA, I.M.; FOKINA, A.A.

Case of atresia of the inferior vena cava. Khirurgija 39 no.7:
127-128 Ju'63
(MIRA 16:12)

1. Iz 2-y khirurgicheskoy kliniki (zav. - chlen-korrespondent
AMN SSSR, zasluzhennyy deyatel' nauki prof. B.A. Petrov) Mos-
kovskogo gorodskogo nauchno-issledovatel'skogo instituta skoroy
pomoshchi imeni N.V. Sklifosovskogo (dir. - zasluzhennyy vrach
UkrSSR M.M. Tarasov).

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

SHCHERBATENKO, M.E., kand. med. nauk; ANAKHASYAN, V.R.; OSTROVSKAYA, I.M.;
FTFL'DAN, F.TS.

Azygography in gastrointestinal hemorrhage. Khirurgija 40 no.1:
119-123 Ja '64.
(MIRA 17:11)

L. Tarakovskiy gorskoy nauchno-issledovatel'skiy institut skoroy
pomoschi imeni N.V. Sklifosovskogo (dir. M.M. Tarasov, nauchnyy
rukoveditel' - chlen-korrespondent AMN SSSR prof. B.A. Petrov).

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

WATER FROM RIVER CONTAMINATED BY POLLUTION IS CYANIDE, TO DRYNESS
AND WASHED IN SEVERAL PLACES ALONG THE RIVER BANK.

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

ANAKHOVICH, Ye.D.

Conference of active members of the Altai Territory Red Cross.
Zdrav.Ros.Feder. 2 no.5;44-47 My '58. (MIRA 11:5)
(ALTAI TERRITORY--RED CROSS)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

SIDOROV, Y.F.; ZOIRSKIY, Ch.I.; ANAKIN, I.A.; YERAKHTIN, D.D., kandidat
tekhnicheskikh nauk, rezensent; SUBOLEV, L.A., inzhener, rezensent;
BUSHUYEV, N.M., kandidat tekhnicheskikh nauk, redaktor; SHABASHOV, A.P.,
kandidat tekhnicheskikh nauk, redaktor.

[Repair of agricultural machinery] Remont sel'skokhoziaistvennykh
mashin. Sverdlovsk, Gos. nauchno-tekhn. izd-vo mashinostroit. i
sudostroit. lit-ry [Uralo Sibirskae otd-nie] 1953. 295 p. (MLRA 7:6)
(Agricultural machinery--Repairing)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

ANAKIN, I.A.; GUTMAN, I.M., inzhener, retsenzent; VAGANOV, A.K., kandidat
tekhnicheskikh nauk, redaktor; DUGINA, N.A., tekhnicheskiy redaktor.

[Repair of agricultural machinery parts] Vosstanovlenie detalei sel'-
skokhoziaistvennykh mashin; obobshchenie peredovogo opыта. Moskva,
Gos. nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1954. 89 p.
(Agricultural machinery--Repairing) (MIRA 8:4)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

ANAKIN, ALEXANDER V. 1955

N.S.
723.1
.A5
1955

REMONT SEL'SKOKHOZYAYSTVENNYKH MASHIN (REPAIR OF AGRICULTURAL MACHINES, BY)

1. A. ANAKIN (1 DR.) IZD. 2., ISPR. I DOP. MOSKVA, MASHGIZ, 1955.

332 P. ILLUS., DIAGRS., TABLES.

"LITERATURA": P. 329.

ANAKIN, I. A.

Anakin, I. A.

"The Problem of the Causes of Clogging of the Conveyors of a Grain Combine under the Conditions of Western Siberia." Min Higher Education USSR. Chelyabinsk Inst of the Mechanization and Electrification of Agriculture. Novosibirsk, 1955. (Dissertation for the Degree of Candidate in Technical Science.)

SO: Knizhnaya Letopis'
No. 27, 2 July, 1955

ANAKIN, I.A., inzhener.

Analyzing the working process of screw conveyors on a combine.
Sel'khozmashina no.2:5-10 F '56. (MLRA 9:5)
(Combines (Agricultural machinery))

Анализ, Иван Тимофеевич

ANAKIN, Ivan Aleksandrovich; BUSHUYEV, N.M., kand.tekhn.nauk, rezensent;
SARAFAINNIKOVA, G.A., tekhn.red.

[Mechanization of stock farms; feed preparation and water supply]
Mekhanizatsiya zhivotnovodcheskikh farm; kormoprigotovlenie i vodo-
snabzhenie. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry,
1957. 119 p.
(Farm equipment) (Stock and stockbreeding)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

ANAKIN, I.A.

Analyzing the operation of combine worms. Trakt. i sel'khozmash.
no.1:24-26 Ja '59. (MIRA 12:1)
(Combines (Agricultural machinery))

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

ANAKIN, Ivan Aleksandrovich; NIKITINA, V., red.; TRUKHINA, O.N.,
tekhn. red.

[Laboratory exercises in the mechanization of stockbreeding]
Praktikum po mekhanizatsii zhivotnovodstva. Moskva, Sel'khoz-
izdat, 1962. 155 p. (MIRA 15:11)
(Stock and stockbreeding--Equipment and supplies)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

Armenia N.Y.
USSR

3449 AERE-1ib/Trans-499

ON THE INTERRELATION BETWEEN THE HYDRODYNAMICS OF STEAM-WATER MIXTURES, THE TEMPERATURE DISTRIBUTION IN A METAL AND THE DEPOSITION OF EASILY SOLUBLE SALTS IN HORIZONTAL STEAM-GENERATING PIPES. M. A. Styrikovich, Z. L. Miropol'skii, and N. M. Anokhin. Translated by J. B. Sykes from Izvest. Akad. Nauk S.S.R., Otdel. Tekh. Nauk, 432-40(1953). 10p.

Several series of experiments have been performed in a closed circulating system including heated vertical and horizontal portions of steam-generating pipes of various diameters. It was found that deposition of NaCl and Na₂SO₄ took place in the horizontal parts of boiler pipes when the temperatures of the upper part of the pipe wall were higher than those of the lower part. The probability of the occurrence of deposition increases with pressure. (M.P.G.)

L 46812-66

ACC NR: AT6020496

SOURCE CODE: CZ/2514/65/000/051/0047/0048

AUTHOR: Gnevyshev, M. N.; Analova, A.15
B+1ORG: [Gnevyshev] Pulkovo Observatory; [Analova] Astronomical Institute of the
Slovak Academy of Sciences, Skalnate Pleso

TITLE: Distribution of sunspots by heliographic latitude for an eleven-year cycle

SOURCE: Ceskoslovenska akademie ved. Astronomicky ustav. Publikace, no. 51,
1965. 3rd Consultation on Solar Physics and Hydromagnetics, Tatranska Lomnica,
13-16 October 1964, 47-48 and inserts

TOPIC TAGS: sunspot, sunspot cycle, heliographic latitude

ABSTRACT: On the basis of previous works, the author analyzes the distribution
and frequency of appearance of sunspot areas in heliographic latitudes from the
12th to the 18th sunspot cycle. The same method is used for the areas and the
frequency of appearance of new spot groups. The figures in the original article
show the distribution of new spot areas in different zones with the curves plotted

Card 1/3

L 46812-66

ACC NR: AT6020496

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from annual values, and the distribution of sunspot areas with curves reduced so that the sunspot areas of all zones in one hemisphere of each cycle are taken as 100%. This was done in order to eliminate the influence of the 80-yr period. These normalized curves were used to determine the mean distribution of sunspot areas for the different zones during the eleven-year cycle. The normalized curves are superposed in two different ways, both represented in a figure included in the original article. Two distinct maxima are obtained. The same result is obtained when the frequency of appearance of new spot groups is considered instead of the area. The shape of the individual original curves is the criterion for determining which approach is the more accurate. In cycles in which the time difference between the two maxima forming the solar cycle is small, they seem to form a single peak. When the two maxima are low and the time difference is considerable, two maxima are observed with mean latitudes differing by some 15°. Therefore, the mean curve of a typical solar cycle cannot be obtained by taking the maxima of different cycles as the starting points. In the discussion following the article, one of the authors affirms that the two bursts of activity are seen distinctly in both hemispheres, and that the evolution of sunspot groups in the butterfly diagram has

Card 2/3

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

AJAKYAN, A. K.

"The Problem of Lake Sevan Must be Solved in a New Way." (On the Preservation of the water level of Lake Sevan). Izv. Ak Nauk ARM SSR, seriya tekhn. nauk, vol. 10, no. 5, pp. 9-10, 1957.

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

USSR / Soil Science. Cultivation. Improvement. Erosion.

J-4

Abs Jour : Ref Zhur - Biologiya, No 16, 1958, No. 72736

Author : Ananyan, G. T.

Inst : Armenian Scientific-Research Institute of Hydroengineering
and Amelioration

Title : Irrigation Character of Underground Waters of the Ararat
Plain as Regards Qualitative-Quantitative Chemical
Composition

Orig Pub : Tr. Arm. n.-i. in-ta gidrotokhn. i molior., 1957, 2,
145-161

Abstract : It is shown that drain waters which were pumped from
the fields of the Ararat Plain and collected in the
Arax River are characterized by weak mineralization
(0.5-1.3 g/l dense residue) and can be utilized for
irrigation of agricultural crops. Underground waters
of the Ararat Plain are also useful for irrigation and

Card 1/2

PODBORSKIY, L.Ye.; GAREBUZOV, Z.Ye.; ANAN'YEV, A.A., kand. tekhn.
nauk, dots., retsenzent [deceased]; DOBROVSKIY, N.G.,
doktor tekhn. nauk, red.

[Continuous excavators; bucket construction excavators.
Atlas cf designs] Ekskavatory nepreryvnogo deistviia;
mnogokovshoye stroitel'nye ekskavatory. Atlas konstruk-
tsii. Moskva, Mashinostroenie, 1964. 148 p.

(MIRA 17:5)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

LIVANOV, M.N.; ANAL'YEV, V.M., Moskva

Electrophysiological study of the spatial distribution of the
cerebral cortex activity in rabbits. Fiziol.zhur.41 no.4;461-
469 Jl-Ag '55.

(MLRA 8:10)

(CEREBRAL CORTX, function tests,
electrophysiologic determ. of distribution of
funct. in various areas)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

17 (3, 12)

SOV/16-60-4-10/47

AUTHOR: Ananashchenko, N.I., Nekhotenova, Ye.I. and Leonova, A.A.**TITLE:** Methods of Determining Diphtheria Antitoxin in Immune Sera**PERIODICAL:** Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1960, Nr 4,
pp 44 - 47 (USSR)**ABSTRACT:** The authors made a comparative study of Römer's and Jensen's methods of titrating diphtheria antitoxin in immune sera, and of K.T. Khalyapina's modifications of these methods which are generally used in the Soviet Union. The results obtained with the original and with the modified methods diverged. The modified methods proved the diphtheria antitoxin content in the sera to be lower than by the original methods. This is because the modified methods take no account of the assumed titer of the serum but titrate all sera at 1:20,000 AU. Moreover, the modified Jensen's method does not include a control batch of tests, so that corrections based on the individual reactivity of the rabbit cannot be introduced into the results. The authors conclude that, for correct results, Jensen's and Römer's original methods should be used. To decide at what level to titrate the sera under test, a series of

Card 1/2

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

MOSCOVICI, I., dr.; ANANASIU, T., dr.; TANASESCU, Doina, dr.

Pickwick syndrome. Med. intern. (Bucur) 16 no.9:1091-1094
S "64.

1. Lucrare efectuata in Serviciul de medicina interna al
Spitalului "Dr. V. Babes", Bucuresti.

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

ANANASYAN, Levon Sergeyevich; VASIL'YEVA, Mayya Vladimirovna,
dots.; GUREVICH, Grigoriy Borisovich; IL'IN, Aleksandr
Sergeyevich; KOZ'MINA, Tat'yana Leonidovna; REDOZUBOVA,
Ol'ga Sergeyevna; DOLGOPOLOV, V.G., red.

[Problems in elementary geometry; textbook for pedagogical
institutes] Sbornik zadach po elementarnoi geometrii; po-
sobie dlja pedagogicheskikh institutov. Izd.2., perer. Mo-
skva, Frosveshchenie, 1964. 93 p.
(MIRA 17:7)

BERG, S.L., polkovnik; VOROB'YEV, V.I., kapitan pervogo ranga; GIL'BO, G.M., kapitan pervogo ranga; ANANCHENKO, A.A.; BALAKSHINA, M.M.; BANNIKOV, B.S., kapitan vtorogo ranga; BAKHTINA, G.F.; BERENSHTEIN, N.V.; BUTYRINA, N.Ya.; VOROB'YEV, V.I., kapitan pervogo ranga; GASS, I.P.; GINBYSH, N.S.; GLADIN, D.F., polkovnik; GOLOVANOVA, L.G., kand. ist. nauk; GOLUBEVA, Z.D., kand. filol. nauk; GONCHAROVA, A.I.; ZANADVOCHOVA, R.N.; IVANOVA, N.G.; KARAMZIN, G.B.; KOVAL'CHUK, A.S.; KRONIDOVA, V.A.; LITOVA, Ye.I.; MOLCHANOVA, T.I.; OKUN', L.S.; POCHEBUT, A.N.; RAYTSES, V.I.; SAVINOVA, G.N.; SENICHKINA, T.I.; SKRYNNIKOV, R.G., kand. ist. nauk; FURAYEVA, I.I.; CHIZHOVA, N.N.; YASINSKAYA, L.F.; GLADIN, D.F., polkovnik; LABETSKIY, Ye.F., podpolkovnik; LEBEDEV, S.M., kapitan pervogo ranga; ORDYNSKIY, N.I., kapitan pervogo ranga; NADVODSKIY, V.Ye., podpolkovnik; DEMIN, L.A., inzh.-kontr-admiral, glav. red.; FRUMKIN, N.S., polkovnik, zam. otv. red.; LEVCHENKO, G.I., admiral, red.; BAKHTINA, G.F., tekhn. red.

[Naval atlas] Morskoi atlas. n.p. Izd. Glavnogo Shtaba Voenno-Morskogo Flota. Vol.3. [Naval history] Voenno-istoricheskii. Pt.1. [Text for the maps] Opisania k kartam. 1959. xxii, 1942 p. (MIRA 15:5)

1. Russia (1923- U.S.S.R.) Ministerstvo oborony.
(Naval history)

SHLYAKHTIN, Ye.I.; ZHOROVA, A.G.; ANANCHENKO, M.V.; GRISHUTIN, V.G.;
IVANOV, V.I.; DORONIN, A.A.; POPOVA, M.S., inzh.; TARASENKO, I.I.;
ROMANOV, A.I.; ZHUKOV, A.V.; LAPTEV, G.I., inzh.

Who should perform the forwarding and carrier services?
Zhel. dor. transp. 45 no.6:42-45 Je '63. (MIRA 16:7)

1. Zamestitel' nachal'nika stantsii Smolensk Moskovskoy dorogi
po gruzovoy rabote (for Shlyakhtin). 2. Nachal'nik pogruzkontory
stantsii Smolensk Moskovskoy dorogi (for Zhorova). 3. Zave-
duyushchiy gruzovym dvorom stantsii Smolensk Moskovskoy dorogi
(for Ananchenko). 4. Nachal'nik tovarnoy kontory stantsii
Smolensk Moskovskoy dorogi (for Grishutin). 5. Zaveduyushchiy
konteynernoy ploshchadkoy stantsii Smolensk Moskovskoy dorogi
(for Ivanov). 6. Sekretar' partiynogo byuro stantsii Smolensk
Moskovskoy dorogi (for Tarasenko). 7. Stantsiya Smolensk
Moskovskoy dorogi (for Doronin, Romanov, Popova). 8. Upravlya-
yushchiy Smolenskim oblastnym avtotrestom (for Zhukov).

(Freight and freightage)

ANANCHENKO, N. P.

"Advantages and Disadvantages of the Intercity Telephone Station of the
MRU Type," Vest. Svyazi, No.3, pp 18-19, 1954.

Chief Engineer, Samatov Intercity Telephone Station

Translation Trans, No.533, 6 Apr 56

ANANCHENKO N.P.

111-58-5-19/27

AUTHORS: Ananchenko, N.P., Chief Engineer of the Saratov MTS and
Perkis, D.V., Chief of the Technical Service Laboratory.

TITLE: The Mechanization and Automation of Operational Processes
at the Saratov MTS (Mekhanizatsiya i avtomatizatsiya pro-
izvodstvennykh protsessov na Saratovskoy MTS).

PERIODICAL: Vestnik Svyazi, Nr 5, 1958, p 33(USR).

ABSTRACT: Several measures for mechanizing and automating operational processes have been taken at the Saratovskaya mezhdu-
gorodnaya telefonnaya stantsiya (the Saratov Interurban Telephone Office). At the same time, the introduction of semi-automatic equipment into the oblast' communication service is being continued. Conforming to the recommendations of the "TsNIIS", the "MTS" workers manufactured the "OKDN", "RKDN" and "SK" type units which cut down the required number of telephone operators. Ten outgoing semi automatic units have been put into operation, and 10 incoming ones are being assembled. Last year the transportation of order forms was mechanized utilizing the experience of the Rostov "MTS" in chuckless pneumatic mail systems. The Transportation of order forms to the distributing and observing desk is assured by the shuttle conveyer. A chuck pneumatic mail system was developed and assembled by the "MTS" wor-

Card 1/2

111-58-5-19/27

The Mechanization and Automation of Operational Processes at the Saratov MTS .

kers. It is utilized for transporting telegrams from the "MTS" information desk to the telegraph office. There are 4 photos.

ASSOCIATION: Proizvodstvennaya laboratoriya Saratovskoy MTS (Technical Services Laboratory of the Saratov MTS)

AVAILABLE: Library of Congress

Card 2/2 1. Communication systems-Improvement 2. Telephone systems-Automation mail

6(7)

SOV/111-59-6-15/32

AUTHORS: Ananchenko, N.P., Chief Engineer, and Perkis, D.V.,
Chief of the Laboratory

TITLE: Mechanization and Automation at the Saratov MTS

PERIODICAL: Vestnik svyazi, 1959, Nr 6, pp 19-20 (USSR)

ABSTRACT: The Saratovskaya mezhdugorodnaya telefonnaya stantsiya (Saratov Long-Distance Telephone Office) in the past year achieved a work efficiency rise of 9.3% over the year before, cut the production costs by 4.7%, and raised the office income by 9.4%, by mechanization done by the office staff. The mechanization means are the following: a carrierless pneumatic house tube system for conveying request blanks; pneumatic dispatch of the telegram requests from the office to the telegraph; a shuttle conveyer between the call switchboard and the payment desk; a two-way belt conveyer in the cashier's room of the central call office. The semi-automation of some nation-wide mains and oblast' lines released 6 operators and some switchboards for other duties.

Card 1/2

Mechanization and Automation at the Saratov MTS

SOV/111-59-6-15/32

Intercommunication between the call offices and the long-distance switchboard operators was automated. A small change in the "MRU" long-distance switchboard cut the connection time per call by 5 seconds. Clocks were installed at each long-distance operator's switchboard. A new switchboard was made to replace an unsatisfactory one. A special plexiglass stand (shown in photograph) was made for holding the request sheets in order of receipt. A 15-minute counter, made at the office, replaced the too-complex and partly-hidden 9-minute counters at the long-distance switchboards. The filling-in of the request blanks has also been simplified. There are 3 photos.

ASSOCIATION: Saratovskaya MTS (Saratov MTS)

Card 2/2

ANANCHENKO, N.P.; PERKIS, D.V.

How we have improved the quality of work and increased the productivity of labor. Vest. sviazi 21 no.6:19-20 Je '61.

(MIRA 14:9)

1. Glavnnyy inzhener Saratovskoy gorodskoy mezhdugorodnoy telefonnoy stantsii (for Ananchenko). 2. Nachal'nik proizvodstvennoy laboratorii Saratovskoy gorodskoy mezhdugorodnoy telefonnoy stantsii (for Perkis).

(Telephone--Equipment and supplies)

ANANCHENKO, S. N.
USSR:

Preparation of α -mercurated ketones by decarboxylation of mercury salts of α -ket acid. A. N. Nesmeyanov, I. F. Lutsenko, and S. N. Ananchenko. Uchenye Zapiski Moskov. Gosudarst. Univ. Im. M. V. Lomonosova No. 132, Org. Khim. 7, 138-43 (1950).—The following new procedure has been developed for the synthesis of α -mercurated ketones. $\text{AcCM}_2\text{CO}_2\text{H}$ (0.5 g.) was slowly added to 22.5 g. NaOH in 210 ml. H_2O the mixt. shaken 45 min., extd. with Et_2O , the aq. layer acidified to Congo red with dil. H_2SO_4 and extd. again with Et_2O , gave on evapn. of the ext. 100% $\text{AcCM}_2\text{CO}_2\text{H}$. This (10 g.) added to 115 g. $\text{Hg}(\text{OAc})_2$ in 300 ml. H_2O gave a ppt. of the Hg salt; the entire mass was heated until Hg ion vanished from the soln. The hot soln. was filtered, treated with 28.7 g. KCl in 150 ml. H_2O yielding ppt. of 74% $\text{AcCMe}_2\text{HgCl}$, m. 124°. To this (10 g.) in 30 ml. pentane was slowly added 4 g. AcCl in 10 ml. pentane and the mixt. heated on steam bath 0.5 hr. at 60°, cooled, filtered, and the filtrate, after washing with 5% NaOH and H_2O , was dried, yielding 80% 2-methyl-2-but-en-3-ol acetate, b.p. 140.5-41°, n_D²⁰ 1.4250, d₄₀²⁰ 0.9134. This (0.2 g.) treated with 0.1 g. 2,4-dinitrophenylhydrazine in 0.2 ml. H_2SO_4 and 2 ml. EtOH gave the 2,4-dinitrophenylhydrazone of α - COC(=O)Me_2 , m. 117°. $\text{AcCMe}_2\text{HgCl}$ (16 g.) in xylene with 7 g. BrCl in xylene heated 1 hr. at 50°, then 16 min. on a strain bath, cooled 0.5 ml. pyridine added, filtered, the filtrate washed with 3% NaOH and distilled, gave 63% 2-methyl-2-but-en-3-ol acetate, b.p. 105°, n_D²⁰ 1.517°, d₄₀²⁰ 1.0346. Shaking 51 g. $\text{AcCMe}_2\text{EtCl}_2$ with 12 g. KOH in 400 ml. H_2O 2 days, followed by the above treatment for the di-Me analog, gave the crude $\text{AcCMe}_2\text{EtCl}_2\text{H}$ which was used directly. This (4.1 g.) added to 80 g. $\text{Hg}(\text{OAc})_2$ in 275 ml. H_2O and heated at 45-50°, then treated with 18 g. KCl in 50 ml. H_2O

gave 72% 3-methyl-3-chloromercur-2-pentanone, a heavy oil. This treated under C_2H_4 with AcCl gave 60% mixed cis-trans isomers of 3-methyl-2-penten-2-ol acetate, b.p. 60-8°, n_D²⁰ 1.4290, d₄₀²⁰ 0.9097. Shaking 36 g. $\text{AcC}_2\text{H}_5\text{COEt}$ with 10 g. NaOH in 150 ml. H_2O 3 weeks gave after the usual treatment 40% $\text{AcC}_2\text{H}_5\text{CO}_2\text{H}$. This (11 g.) treated with 20 g. $\text{Hg}(\text{OAc})_2$ in 100 ml. H_2O and heated as above gave after filtration and treatment with aq. KCl, 58% 3-ethyl-3-chloromercur-2-pentanone, m. 77°. This treated in pentane soln. with AcCl gave 3-ethyl-2-penten-2-ol acetate, b.p. 160-70°, n_D²⁰ 1.4340, d₄₀²⁰ 0.9019. Shaking 30 g. 3-Me-2-methylcyclohexanone-2-carboxylate with 12.5 g. NaOH in 116 ml. H_2O 15 min. gave 100% free acid, an oil. This treated with aq. $\text{Hg}(\text{OAc})_2$ as above gave 3-methyl-2-chloro-2-nitrylcyclohexanone, decom. 123° with liberation of Hg; the compound liberates Hg in sunlight. Keeping Et 2-methylcyclohexanone-2-carboxylate in 10% NaOH 24 hrs. with shaking gave after usual treatment the free acid in the form of a strip. This with aq. $\text{Hg}(\text{OAc})_2$ gave 60% 3-methyl-3-chloromercur-2-pentanone, m. 128°, which heated with AcCl in C_2H_4 1 hr. gave 65% 3-nitrylcyclohexen-3-ol acetate, b.p. 165-7°, n_D²⁰ 1.4000, d₄₀²⁰ 0.9004. Similar reaction with BrCl gave 55% corresponding benzene, b.p. 188°, n_D²⁰ 1.5370, d₄₀²⁰ 1.0105. O. M. Kosolapoff

ANANCHENKO, S. V.

7. Synthesis of polycyclic compounds related to steroids
XVI. Condensation of 1-methyl-1-vinylcyclohexanone with
1-methoxy-1,3-butadiene. Synthesis of 2a-methyl-1-vinyl-
4,5-dihydro-3-naphthalenone and 2a-methyl-1-vinyl-1,
2,3,4-tetrahydro-7-azaphthalenone. L. N. Nagorsky, I. A. Turgor,

I. I. Zoretskaya, G. P. Verkhovets, S. N. Ananchenko,
and V. M. Andreev. Bull. Acad. Nauk SSSR, Ser. Khim.,
1953, no. 5 (Engl. translation) J. Org. Chem. U.S.S.R.,
1953, no. 5, p. 422-424.

ANANCHENKO-S.N.

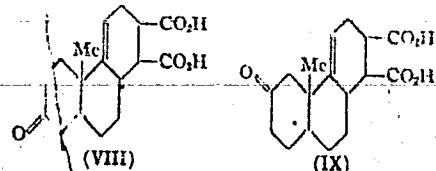
Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Organic Chemistry

Synthesis of polycyclic compounds related to steroids.
XVI. Condensation of 1-methyl-1-cyclohexen-5-one with 2-methoxy-1,3-butadiene. Synthesis of 8a-methyl-1-vinyl- Δ^1 -octahydro-6-naphthalenes and 8a-methyl-1-vinyl- Δ^1 -octahydro-7-naphthalenone. I. N. Nararov, I. V. Torgov, J. I. Zaritskaya, G. P. Verkholevaya, S. N. Ananchenko, and V. M. Andreev. *Zhur. Org. Khim. Nauk S.S.R.* 1953, 78-99; cf. *C.A.* 45, 7585c; 46, 10315d. — *Khim. Nauk* 1953, 78-99; cf. *C.A.* 45, 7585c; 46, 10315d. — To the catalyst prep'd. from 4.5 ml. $\text{BF}_3 \cdot \text{Et}_2\text{O}$, 15 g. yellow HgO , 2 g. ClCCO_2H , and 10 ml. abs. MeOH was added 480 g. abs. MeOH and the mixt. treated over 9 hrs. with 280 g. $\text{CH}_2=\text{CHC}_2\text{CH}_3$ at about 40° , let stand overnight, stirred 4 hrs. at 40° , cooled, and neutralized with 10 ml. 6% MeONa ; distn. gave 67% 1,3,3-trimethoxybutane, bp 60-2°, n_{D}^{20} 1.4112. If near the end of the reaction some 1 ml. $\text{BF}_3 \cdot \text{Et}_2\text{O}$ and 5 g. HgO are added, the yield is raised 5-7%. The product was slowly added to 10 g. Ph_2O and 0.6 g. powd. KHSO_4 , heated to 151° at such a rate that the vapor temp. remained below 62° , yielding a distillate of 2-temph. remained below 62° , yielding a distillate of 2-methoxy-1,3-butadiene (I), $\text{MeOCH}_2\text{CH}_2\text{C}(\text{OMe})\text{CH}_3$, and MeOH ; redistn. gave 65-70% I, pure enough for further work; b. 72-5°, n_{D}^{20} 1.4430-1.4450. I (15 g.) and 120 g. 1-methyl-1-cyclohexen-5-one heated in a metal ampul in CO_2 with 1%

(OZ-CL)

PhNEt_2 , 2.5 hrs., at $200-210^\circ$ yielded after repeated distn. 44% mixed *8a*-methyl-*6*-methoxy- Δ^1 -octahydro-*1*-naphthalenone (Ia) and *8a*-methyl-*7*-methoxy- Δ^1 -octahydro-*1*-naphthalenone (II), b_{10} 92-6°. *I*A semicarbazone† (provisionally characterized), m. 208-0.5°. Hydrogenation of mixed Ia-II over Pd in dioxane gave *8a*-methyl-*7*-methoxydecahydro-*1*-naphthalenone, b_{10} , 89-91°, n_D^{20} 1.4892, d_4 1.039; semicarbazone, m. 199-202° (decomp.). To 7 g. Na in 300 ml. liquid NH_3 was added over 2 hrs. C₂H₂ at 20 l./hr., then 10.7 g. mixed Ia-II in Et₂O, the C₂H₂ flow continued 9 hrs., 20 g. NH₄Cl added, and the mixt. allowed to stand overnight; treatment with H₂O and extn. with Et₂O gave 2 g. *1*-ethynyl-*8a*-methyl-*6*-methoxy- Δ^1 -octahydro-*1*-naphthol (III), m. 123-3.5° (from CHCl₃). The mother liquor gave 6 g. mixed III and its *7*-MeO isomer, b_1 110-21°, n_D^{20} 1.5263. The use of K or Li failed to give better results. Shaking III in Et₂O 2 hrs. with 8% HCl gave 100% *1*-ethynyl-*8a*-methyl-*1*-hydroxydecahydro-*6*-naphthalenone (IV), m . 155-6°. To 17 g. Na in 850 ml. liquid NH_3 was added 40 l. C₂H₂ in 1 hr., and, with a reduced rate of C₂H₂ flow, the mixt. was treated with 80 g. mixed Ia-II in 250 ml. Et₂O; the passage of C₂H₂ continued 6 hrs., and the mixt. kept overnight at -70°, treated with C₂H₂ 5 hrs., allowed to warm to -35°, treated with 60 g. powd. NH₄Cl, allowed to evap.; the residue, after addn. of Et₂O, was treated wth ice H₂O, and the concd. org. layer treated with 100 ml. 1% HCl and stirred 3 hrs., yielding 34-9 g. IV, m. 158° (from EtOH or C₂H₂). The mother liquor treated with petr. ether gave 6-8 g. 7-oxo isomer of IV, m. 134° (from EtOH); the residue (13-16 g.) was a mixt. of the 2 substances, b_{10} , 134-6°, n_D^{20} 1.5280. Hydrogenation of IV over PtO₂ in EtOH gave the *t*-Et analog, m. 127-8°; the other isomer similarly gave *t*-ethyl-*8a*-methyl-*1*-hydroxydecahydro-*7*-naphthalenone, m. 85°. Hydrogenation of IV in dioxane over Pd (1 mole H absorbed) gave a viscous mass, crystg. very slowly; the pure *t*-vinyl analog of IV, m. 111-12° (from petr. ether). The *t*-vinyl-*8a*-methyl-*1*-hydroxydecahydro-*7*-naphthalenone (V), m. 114-15°, crystd. rapidly. Dehydration of these over

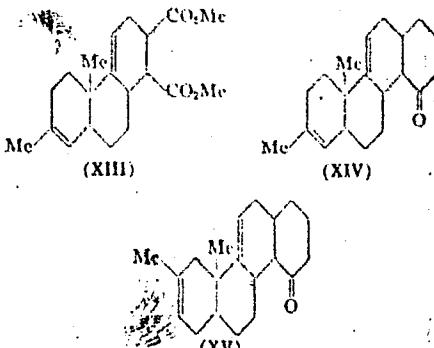
KHSO₄ in the presence of pyrogallol at 140-5°/40-5 min. gave, resp. 67% *1*-vinyl-*8a*-methyl- Δ^1 -octahydro-*6*-naphthalenone (VI), b_{10} 114-17°, b_1 109-3°, n_D^{20} 1.5260, d_4 1.022 (semicarbazone, m. 174.5-6.0° (from EtOH)), and 74% *1*-vinyl-*8a*-methyl- Δ^1 -octahydro-*7*-naphthalenone (VII), b_{10} , 91-6°, n_D^{20} 1.5270 (semicarbazone, m. 196-7°). Hydrogenation of mixed IV and its *7*-oxo isomer over Pd gave some 20% V, and dehydratn. of the residue gave 40% mixed VI-VII. VI reacted spontaneously with maleic anhydride and treatment of the product with ale. aq. KOH, followed by acidification, gave the previously described dicarboxylic acid (VIII), m. 200-2.5°. VII similarly gave the dicarboxylic acid (IX), decomp. 203°, becoming transparent only at 210°. (2 g.), 10 ml. MePh, and 0.05 g. powd. KOH



heated 0.5 hr. at 110° gave C₂H₂ and a trace of *8a*-methyl-*1,6*-dioxodecahydro-*naphthalene*, m. 60-2°. To MeMgBr (from 13 g. Br) was added in 10 min. at 5-10° 5 g. VI and the mixt. fluxed 5 min.; after decompr. with ice and 20% HCl, the org. layer gave 90% *1*-vinyl-*6*,*8a*-dimethyl- Δ^1 -octahydro-*6*-naphthol (X), b_{10} , 91-4°, n_D^{20} 1.5200. Similarly was obtained 87% *1*-vinyl-*7*,*8a*-dimethyl- Δ^1 -octahydro-*7*-naphthol (XI), m . 92-6°, n_D^{20} 1.5235. Dehydration over KHSO₄ in the presence of pyrogallol at 140-50°/45 min. gave, resp., 61% *1*-vinyl-*5*,*8a*-dimethyl- Δ^1 -hexahydronaphthalene (XII), b_{10} , 2°, n_D^{20} 1.5240, d_4 0.940, and *1*-vinyl-*7*,*8a*-dimethyl- Δ^1 -hexahydronaphthalene (XIIIa), b_{10} , 68-70°, n_D^{20} 1.5220. (6.8 g.) heated with 15 g. di-Me maleato 6 hrs. at 100° followed by removal of unused ester in,

9

hrs. at 370° reacted incompletely and yielded but 80 mg. 2-methylphenanthrene, m. 57.9.5°; *picrate*, m. 115-17°. Dehydrogenation of the viscous isomeric acid failed to yield a solid product. Heating 1.2 g. XII and 3.1 g. 2-cyclohexen-1-one in CO₂ in an ampul 4 hrs. at 200° gave 0.5 g. crude ketone (XIV), b.p. 160-6°, which was used in this form. Similarly XIIIa gave crude ketone (XV), b.p. 145-50°, which was used in this state. Heating 0.6 g. XIV in 3 ml. O(CH₂CH₂OH) with 0.4 g. N₂H₄·H₂O 5 min., then with 0.4 g. Na, in 10 ml. O(CH₂CH₂OH) 10 hrs. at 200° and 3 hrs. at 220°, extn. of the dild. mixt. with Et₂O, evapn. of the washed ext., and heating the residue with Pd-C in C₆H₆ 6 hrs. at 350° in a N atm. gave 14 mg. 2-methylchrysene, m. 222-3° (*picrate*, m. 145.5-6.0°). Similarly 1.2 g. XV gave 0.45 g. crude product, b.p. 120-30°, dehydrogenated as above to 15 mg. 3-methylchrysene, m. 160-8° (*picrate*, m. 160-1°).



vacuo and heating the residue with KHSO₄ and little pyrogallol 0.25 hr. at 160-70°/25 mm. gave 4.3 g. XIII, b.p. 165-70°, n_D²⁰ 1.6200, which, heated 3 hrs. with aq. sol. NaOH, gave the free acid, does not m. 200°. XI treated similarly gave the corresponding ester (not characterized) but hydrolysis of the latter gave only a viscous mass. The free acid of XIII heated in a N atm. with Pd-C in C₆H₆ 1.5

ANANCHENKO, S.N.

U.S.S.R.

Synthesis of polycyclic compounds related to steroids. VII. Preparation of α,β -unsaturated cyclic ketones (2,3-dihydro- α,β -unsaturated cyclic ketones). I. N. Nazarov, L. D. Verkholtova, V. V. Torgov, and S. N. Ananchenko. *Bull. Acad. Sci. U.S.S.R., Div. Chem. Nat.*, 1983, 787-08 (Engl. translation). See C.A. 99, 1083d. XVIII. Condensation of 1-vinyl-9-methyl-6-octahydronaphthalenone and 1-vinyl-9-methyl-7-octahydronaphthalenone with 1,3-dimethyl-1-cyclopenten-5-one. I. N. Nazarov and I. V. Torgov. *Ibid.* 792-816. See C.A. 99, 1083d. XIX. Condensation of 1-vinyl-9-methyl-1-octahydronaphthalen-6-one and 1-vinyl-9-methyl-1-octahydronaphthalen-7-one with 1-cyclohexenones, and citraconic anhydride. I. N. Nazarov, I. I. Zaretskaya, G. P. Verkholtova, and I. V. Torgov. *Ibid.* 817-25. See C.A. 99, 1083c. XX. Condensation of 1-vinyl-9-methyl-1-octahydronaphthalen-6-one and 1-vinyl-9-methyl-1-octahydronaphthalen-7-one with 1-cyclopentenone, 1-methyl-1-cyclopenten-3-one and 1,3-dimethyl-1-cyclopentene-4,5-dione. I. N. Nazarov, G. P. Verkholtova, I. V. Torgov, I. I. Zaretskaya, and S. N. Ananchenko. *Ibid.* 827-38. See C.A. 99, 1083e. H. L. H.

ANANCHENKO, S.N.

USSR/Chemistry - Synthesis

Card 1/1 : Pub. 40 - 19/22

Authors : Nazarov, I. N.; Verkholetova, G. P.; Torgov, I. V.; Zaretskaya, I. I.;
and Ananchenko, S. N.

Title : Synthesis of steroid compounds and their substances. Part 20. -

Periodical : Izv. AN SSSR. Otd. khim. nauk 5, 929-940, Sep-Oct 1953

Abstract : The synthesis of steroid diketones of the cis-cis series is described. The formation of three isomeric diketones, two of which have an inverted structure and are distinguished by a spatial position of substitutes, is explained. The products derived from the condensation of 1-vinyl-9-methyl- Δ^1 -octalone with Δ^1 -cyclopentenone and with 1,3-dimethyl- Δ^1 -cyclopentene-4,5-dione and their characteristics, are described. Nine references: 7-USSR and 2-USA (1935-1953).

Institution : Academy of Sciences USSR, Institute of Organic Chemistry

Submitted : October 7, 1952

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CIA-RDP86-00513R000101310013-1

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

ANACHENKO, S.N.

USSR/Organic Chemistry. Natural Products and their
Synthetic Homologues.

E-3

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19311.

Author : Nazarov I. N., Anachenko S.N., Torgov I. V.

Inst : Synthesis of Steroid Compounds and Relative Substances.

Title : XXII. Stereochemistry of Hydrogenation and Reduction of
6,9-dimethyl-1-keto- Δ 4(10) 5, - hexahydronaphthalene.

Orig Pub: Zh. Obshch. Khimiya, 1956, 26, No 4, 1175-1186.

Abstract: It was shown, that at the hydrogenation of 6,9-dimethyl-
keto- Δ 4(10), 5-hexahydronaphthalene (I) with Pt-catalyst
and at the reduction I with Li in liquid NH₃ are formed
derivatives of trans-6,9-dimethyldecaline. The addition
of the first molecule H₂ to I in the presence of Pt in
alcohol or glacial CH₃COOH occurs mainly in the position
of the double bond in the position 4-10 on the opposite
side from the angular methyl group, whereby is formed a

Card : 1/11

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USSR/Organic Chemistry. Natural Products and their
Synthetic Homologues.

E-3

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19311.

trans-6,9-dimethyl- Δ 5-octalon-1 (II) with an admixture
(~5%) 6,9-dimethyl- Δ 4(L)-octalon-1 (III). The addition
of the second molecule H₂ goes into 5-6 position and leads
to trans-6,9-dimethyl decalon-1(IV). On the exhaustive
hydrogenation I in the presence of Pt are absorbed 3
molecules H₂, and 6,9-dimethyldecalolo-1 (V) is obtained.
Hydrogenation of I in V is best carried out with Pt in
the presence of HCl; at the hydrogenation of I in a solution
of alcohol or CH₃COOH without the addition of HCl,
occurs easily and speedily only 2 molecules of H₂ to the
ethylene bonds; however the reduction of the CO group
proceeds several times slower. In the presence of Pd-
catalyst in alcohol the addition of the molecule H₂ to
I occurs in the position 1-4, whereby is formed 6,9-
dimethyl- Δ 5(10)-octalon-1 (VI), after which the hydro-

Card : 2/11

USSR/Organic Chemistry. Natural Products and their
Synthetic Homologues.

E-3

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19311

tion of the CO₂ group only takes place and is formed 6,
9-dimethyl- $\Delta^4(10),5$ -hexalolo-1 (X) which at further hy-
drogenation with Pt is converted into V. In the presence
of alcohol the reduction of I Li in liquid NH₃ yields
trans-6,9-dimethyl- Δ^5 -octalolo-1 (XI), oxidized with
O₂O₃ into II. In the presence of Pt, XI is hydrogenated
into V. At the previously described (RZhKhim, 1956, 16188)
diene condensation of isoprene (XII) with 1-methyl- Δ^1 -
cyclohexanone-6 (XIII) are obtained $\Delta^6(7)$ -6,9-dimethyl-
octalono-1(XIV) and $\Delta^6(7)$ -7,9-dimethyloctalone-1 (XV).
The hydrogenation of XIV with Pt yields a mixture of VI.
and its 6-epimero (XVI) with a predominant amount of VI.
For the determination of the structure XV it was conver-
ted by means of interaction with CH₃MgI into 1,7,9-trim-
ethyl- Δ^6 -octalone-1(XVII), which is dehydrated into 1,

Card : 4/11

USSR/Organic Chemistry. Natural Products and their
Synthetical Homologous.

E-3

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19311.

dinitrophonylhydrazino (XX) and subsequent fractional crystallization are isolated DNPH II, yield 2 g. m.p. 207-208.5° and DNPH III, yield 0.1 g., m.p. 189-190°. 0.22 g. of I in 10 cc alcohol and 3 cc HCl is hydrogenated with Pt until the absorption reaches 3 moles H₂, V is obtained, yield 0.17 g., m.p. 96-98°. 1 g. I is hydrogenated in alcohol with skeleton Ni until the absorption of 2 moles H₂ and V is obtained, yield 0.19 g. 1.8 g. I in 15 cc alcohol is hydrogenated in the presence of Pd/CaCO₃ (10% Pd.); after the absorption of 1 mole of hydrogen the hydrogenation is drastically slowed down, VI is obtained, yield 1.5 g., b.p. 85-87°/1.5 mm, n₂₀D 1.5000; DNPH, m.p. 200-201° (dec. from alc.-ethylacetate 1:1). To the cooled off solution CH₃MgI (from 0.8 g Mg, 5 g. CH₃I, and 40 cc ether) is added 2 g. VI in 15 cc ether,

Card : 6/11

USSR/Organic Chemistry. Natural Products and their Synthetic
Homologues.

E-3

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19311.

χ_{DOD} 1.5410. At the hydrogenation of 0.6 g. of X in alcohol with Pt for 30 min. 2 moles of H_2 is absorbed, and V is formed, yield 0.25 g. m.p. 100°; 3,5 dinitrobenzoate, n.p. 128-129°. Oxidation of V by means CrO_3 in glac. CH_3COOH leads to the formation of IV, with characteristics cf the form of DNPH. To 140-150 cc NH_3 is added 0.6 g. Li, stirred 20 min. at -70°, is added a solution 2.1 g. I in 40 cc ether, stirred 35 min., 15 cc of absol. alc. is poured in and stirred 2 hours at -70°. After the usual treatment is obtained XI, yield 0.9 g., m.p. 87-89° (from petr. ether). At the oxidation of 0.3 g. XI CrO_3 in glac. CH_3COOH is formed II, yield 0.1 g. At the hydrogenation of 0.33 g. XI in alcohol with Pt in 1 hour is absorbed 1 mole H_2 , and V is formed, yield 0.203 g. at the oxidation of which is obtained IV characteristic of the form of DNPH. A mix-

Card : 8/11

USSR/Organic Chemistry. Natural Products and their Synthetic
Homologues.

E-3

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19311

ture of 30g. XII and 135 g. XIII is heated in a metallic ampoule 50 min. at 280-285° (temperatute of water bath) and the unreacted XIII is distilled off in vacuum (123 g.). From three experiments is obtained 20 g. of a mixture XIV and XV. From 10 g. of a mixture is obtained DNPH (10.4 g. XX, 50cc alcohol, 50 cc dioxane and 12 cc $NaCl$), and after a fractional crystallization of DNPH mixture from a mixture of ethylacetate and alcohol is isolated DNPH XIV, yield 6 g., m.p. 181-182° and DNPH XV, yield 1.02 g., n.p. 162.5-163°. A mixture of 4 g. DNPH XIV, 8 cc $CH_3COOOOH$, 9.6 g. CH_3COONa , 100 cc water and 260 cc CH_3COOH is heated 2 hours at 110-120°, CH_3COOH is distilled off in vacuum before the crystallization starts, the remainder is treated with a solution of soda until it reacts slightly alkaline, filtered, the filtrate is

Card : 9/11

NAZAROV, I.N.; VERKHOLETOVA, G.P.; ANANCHENKO, S.N.; ALEKSANDROVA, G.V.; TORGOV, I.V.

Synthesis of polycyclic compounds related to steroids. Part 35.
Condensation of cyclic allyl halide derivatives with cyclic 2-methyl-
-1,3-diketones and intramolecular cyclization of resulting compounds
into ketones with hydrogenated skeletons of phenanthrene, chrysene,
and cyclopentanophenanthrene containing an angular methyl group.

Zhur. ob. khim. 26 no. 5:1482-1495 My '56.
(Ketones) (Condensation products (Chemistry))

(MLRA 9:9)

5(3)

AUTHORS:

Nazarov, I. N., Ananchenko, S. N., Torgov, I. V.

SOV/62-59-1-16/30

TITLE:

Condensation of Vinyl Cyclohexene With Propiolic and
Tetrolic Acid and Their Esters (Kondensatsiya vinyltsiklogesk-
sena s propiolovoy i tetrolovoy kislotami i ikh efirami)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1959, Nr 1, pp 95 - 102 (USSR)

ABSTRACT:

The authors of the present paper tried to investigate the possibility of building polycyclic systems like steroids by condensation of dienes with acetylene monocarboxylic acids and subsequent prolongation of the chain by means of condensation with sodium acetic (or sodium malonic) ester and cyclization according to the scheme adjoining. The condensation of 1-vinyl-1-cyclohexene with propiolic acid forms, at 100° and with a total yield of 60%, a mixture of $\Delta^{1,4}$ -hexahydronaphthalene-1-carboxylic acid (I) and $\Delta^{1,4}$ -hexahydronaphthalene-2-carboxylic acid (II) at a ratio of 10:1. The reaction with methyl ester of propiolic acid takes a similar course. The hydrogenation of the isomeric acids (I) and (II) with platinum oxide as a catalyst

Card 1/3

Condensation of Vinyl Cyclohexene With Propiolic and
Tetrolic Acid and Their Esters

SOV/62-59-1-16/38

in acetic acid takes a space selective course in both cases and leads accordingly to the cis-syn-decalin-1-carboxylic acid (III) and cis-decalin-2-trans-carboxylic acid (IV). The reduction of $\Delta^{1,4}$ -hexahydronaphthalene-1-carboxylic acid (I) by lithium aluminum hydride yields 1-oxy-methyl- $\Delta^{1,4}$ -hexahydronaphthalene (VI). This was transformed by the effect of phosphorus tribromide into a corresponding bromide. The authors tried to condense the latter with sodium acetic and sodium malonic ester. The condensation of 1-vinyl-1-cyclohexene with tetrolic acid takes place not earlier than at 130° in a yield of the adduct (VIII) of 4% only, for the basic mass of tetrolic acid is decomposed therein into methyl acetylene and carbon dioxide. Propiolic acid condenses very readily with 1-vinyl-6-methoxy-3,4-dihydronaphthalene (IX) under the formation of a mixture of isomeric acids (X) and (XI) in large yield. There are 1 figure and 10 references, 5 of which are Soviet.

Card 2/3

Condensation of Vinyl Cyclohexene With Propiolic and
Tetrolic Acid and Their Esters

SOV/62-50-1-16/35

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D. Ze-
linskiy of the Academy of Sciences, USSR)

SUBMITTED: April 16, 1957

Card 3/3

5(3)

AUTHORS:

Nazarov, I. N., Ananchenko, S. N., Torgov, I. V. SOV/62-59-1-17/38

TITLE:

Synthesis of Stereoid Compounds and Related Substances
(Sintez steroidnykh soyedineniy i rodstvennykh im veshchestv)
Communication 41. A New Type of Condensation of Divinyl
Carbinols With Cyclic 1,3-Diketones (Soobshcheniye 41. Novyy
tip kondensatsii divinilkarbinolov s tsiklicheskimi 1,3-di-
ketonami)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1959, Nr 1, pp 103 - 109 (USSR)

ABSTRACT:

In preceding papers it was found that the condensation of allyl bromides with sodium derivatives of cyclic 1,3-diketones and the subsequent cyclization of reaction products leads to the formation of polycyclic ketones, among them also those related to steroids (Refs 1 and 2). In the present paper these transformations were carried out also with 2 isomers of 2-methyl-1-vinylcyclohexane-1-ol (I). The results were practically the same. By the effect of gaseous hydrogen bromide on both isomers (I) the allyl bromide (II) is produced in vinyl alcohol at 0° in a yield of ~ 60%. The bi-

Card 1/3

Synthesis of Steroid Compounds and Related Substances. SOV/62-59-1-17/38
Communication 41. A New Type of Condensation of Divinyl Carbinols With
Cyclic 1,3-Diketones

cyclic diketone (III) is produced in a yield of 55% by the condensation of (II) with methyl hydroresorcinol in the presence of sodium ethylate. (III) is cyclized with phosphoric anhydride (10-15%) on heating in vacuum. The water is separated and the tricyclic ketone (IV) is formed in a yield of ~ 50%. Furthermore, 1-vinyl- Δ^2 -cyclohexene-1-ol (V) and 1-vinyl-2-methyl- Δ^2 -cyclohexene-1-ol (VI) were synthesized according to the usual scheme by condensation of Δ^2 -cyclohexenone and 2-methyl- Δ^2 -cyclohexenone with lithium acetylenide in liquid ammonia and subsequent selective hydrogenation of corresponding acetylene alcohols (VII) and (VIII). The authors failed to carry out this reaction by way of allyl bromides and 1-vinyl-6-methoxy-1-tetralol. It was found, however, that in the presence of sodium ethylate or trimethylbenzyl ammonium hydroxide (Triton B) an addition of methyl hydroresorcinol to vinyl cyclohexenols (V) and (VI) takes place. Thereby bicyclic diketones (IX) and (X) are formed on the separation of water in a yield of ~50%. The structure of (IX) and (X) was confirmed by infra-

Card 2/3

Synthesis of Stereoid Compounds and Related Substances. SCV/62-59-1-17/38
Communication 41. A New Type of Condensation of Divinyl Carbinols With
Cyclic 1,3-Diketones

red spectra (Table). The cyclization of (IX) and (X) is very difficult and could be carried out only in the case of (X). On its heating in vacuum with 50 wt% phosphoric anhydride the authors succeeded in obtaining the tricyclic ketone (XI) at 150-160° in a small yield. There are 1 table and 7 references, 5 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo of the Academy of Sciences, USSR)

SUBMITTED: April 16, 1957

Card 3/3

5(3)

AUTHORS:

Ananchenko, S. N., Torgov, I. V.

SOV/20-127-3-20/71

TITLE:

A New Way of Synthesizing Steroid Compounds. The Synthesis of
D-Homoequilenine and D-Homoisoequilenin

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 553-556
(USSR)

ABSTRACT:

In former papers (Ref 1) the authors reported on the synthesis of tricyclic and tetracyclic ketones by means of the cyclation of disubstituted derivatives of dihydroresorcin under the influence of the anhydride of phosphoric acid. The original di-ketones may be produced by alkylation of methyl-dihydroresorcin (Ref 1) and by condensation of the latter with vinyl-cyclenoles (Ref 2). According to the structure of the original carbinol, either the former or the latter way is more favorable. The authors decided to apply these reactions on 1-vinyl-5-methoxy-tetralol-1 in such a way that tetracyclic systems develop with functional groups in the position 3 and 17, i.e. exactly as in natural sterol. In fact, they succeeded in developing 3-methoxy $\Delta^{1,5,9-8,14}$ -seco-D-homo-estra-tetraen-dion-14,17a (III) by heating 1-vinyl-6-methoxy-tetralol-1 (I) with 1-methyl-dihydro-resorcin (II) in the presence of

Card 1/3

A New Way of Synthesizing Steroid Compounds. The synthesis of L-Homoequilenine and D-Homoisoequilenin triton-B (trimethyl-benzyl-ammonium-hydroxyd) with an output of 41 % (calculated for carbinal (I)), and 60 % with regard to the diketone (II) which entered the reaction. A cyclation of the diketone (III) with the anhydride of phosphoric acid lead to the development of 3-methoxy $\Delta^{1,3,5,8,14}$ -D-homo-estr-penta-enon (IV). Ketophenol (V) was developed by the demethylation of ketone (IV) by heating it with pyridin-hydrochloride, i.e. the demethylation reaction of diketone (III) is accompanied by a cyclation, since the same ketophenol (V) develops with a similar mixture of trans-3-methoxy- $\Delta^{1,3,5,8}$ -D-homo-estr-tetra-enon-17a (VIa) and apparently its isomer $\Delta^{8(14)}$ (VIb) develop during the hydration of ketone (IV) in a mixture of alcohol and pyridine. In analogy to the hydration of 6,9-dimethyl- $\Delta^{4,5}$ -hexa-hydro-nephthalinon-1 (2b), with a similar structure, the hydrogen addition to ketone (IV) is bound to take place in the least protected positions 1,2 and 1,4. Methyl-ether of trans- and cis-D-homo-equilenin (VIIb respectively VIIa) were isolated by the dehydration of the mixture (without separation) with palladium on coal, at a temperature of 330°. Cis- and trans-D-homo-equilenin (VIIa, VIIb).

Card 2/3

A New Way of Synthesizing Steroid Compounds. The
Synthesis of D-Homoequilenine and D-Homoisoequilenin SOV/20-127-3-20/71
respectively VIIIb) developed by the demethylation of the two
ketones. The melting points of the ketones (VIIIb), (VIIia)
and (VIIIb) corresponded to the published data (Refs 3,4),
while the melting points of (VIIa) was higher by 50° than
stated in reference 3. The u.-v.-spectra of (VIIa) and (VIIIb)
were very similar to the spectrum of β -methoxy-naphthalene.
Mixing experiments of (VIIIb) and (VIIb) with notoriously known
samples did not reduce the melting temperature (sample given
by Professor Chang-Chin, Peking, Petroleum Institute).
According to Bachmann (Ref 3) (VIIIb) is active in doses of
50 γ (compared to 30 γ for equilenin) for subcutaneous in-
jections for mice. There are 1 figure and 6 references, 4 of
which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute for Organic Chemistry imeni N. D.
Zelinskiy of the Academy of Sciences, USSR)

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SUBMITTED: April 6, 1959
Card 3/3

AVANCEENKO, S.N.; LEONOV, V.N.; PLATONOVA, A.V.; TORGOV, I.V.

New steps leading to the synthesis of steroid compounds. Complete synthesis of d,l-estrone. Dokl. AN SSSR 135 no.1:73-76 N '60.

1. Institut khimii prirodnnykh soyedineniy AN SSSR. Predstavлено
akademikom M.M.Shemyakinym.
(Estrone) (Steroids)

(MIRA 13:11)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

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"Methods of Obtaining Oestrone, its Derivatives and
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Report presented at the 5th International Biochemistry Congress,
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CIA-RDP86-00513R000101310013-1"

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

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Synthesis of 19-norsteroids based on 3-methoxy- Δ 1, 3, 5, (10),
8, 14-D-homoestrapenta-17a-enone, Izv.AN SSSR, Otd.khim.nauk no.6;
1074-1080 Je '61.
(MIRA 14:6)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Norsteroids)

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CIA-RDP86-00513R000101310013-1"

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

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(MIRA 14:10)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Testosterone)

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"APPROVED FOR RELEASE: 03/20/2001

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Mod. prom. 15 no.2:38-43 F '61.
(MIRA 14:3)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(EQUILENIN) (ESTRONE)

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"APPROVED FOR RELEASE: 03/20/2001

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Il. Institut khimii prirodnykh soyedineniy Akademii nauk SSSR. Pred-
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(Isoestrone)

APPROVED FOR RELEASE: 03/20/2001

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1. Institut khimii prirodnnykh soyedineniy AN SSSR. 2. Institut
organicheskoy khimii Kitayskoy Akademii nauk, Shanskay (for
Tao Dzhen E)

(Estrone)
(Resorcinol)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1

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Synthesis of some D-homosteroids. Izv.AN SSSR.Otd.khim.nauk
no.3:465-470 Mr '62.

(MIRA 15:3)

1. Vsesoyuznyy institut eksperimental'noy endokrinologii i
Institut khimii prirodnnykh soyedineniy AN SSSR.
(Homosteroids)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101310013-1"

LIMANOV, V.Ye.; ANANCHENKO, S.N.; TORGOV, I.V.

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(Estrone)